9400, 9500, and 9600 Combines Repairs

John Deere Harvester Works
TM1401 (28JUL97)
LITHO IN U.S.A.
ENGLISH

9400, 9500, and 9600 Combines Repairs

TM1401 (28JUL97)

Introduction

FOREWORD

This manual is written for an experienced technician. Essential tools required in performing certain service work are identified in this manual and are recommended for use.

Live with safety: Read the safety messages in the introduction of this manual and the cautions presented throughout the text of the manual.

This is the safety-alert symbol. When you see this symbol on the machine or in this manual, be alert to the potential for personal injury.

Technical manuals are divided in two parts: repair and operation and tests. Repair sections tell how to repair the components. Operation and tests sections help you identify the majority of routine failures quickly.

Information is organized in groups for the various components requiring service instruction. At the beginning of each group are summary listings of all applicable essential tools, service equipment and tools, other materials needed to do the job, service parts kits, specifications, wear tolerances, and torque values.

Technical Manuals are concise guides for specific machines. They are on-the-job guides containing only the vital information needed for diagnosis, analysis, testing, and repair.

Fundamental service information is available from other sources covering basic theory of operation, fundamentals of troubleshooting, general maintenance, and basic type of failures and their causes.

DX,TMIFC -19-22MAY92

Contents

Continued on next page

All information, illustrations and specifications in this manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.

TM1401-19-28JUL97

Section 10
GENERAL

Contents

RECOGNIZE SAFETY INFORMATION

This is the safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating practices.

T81389 -UN-07DEC88

DX,ALERT -19-03MAR93

UNDERSTAND SIGNAL WORDS

A signal word—DANGER, WARNING, or CAUTION—is used with the safety-alert symbol. DANGER identifies the most serious hazards.

DANGER or WARNING safety signs are located near specific hazards. General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.

TS187 -19-30SEP88

DX,SIGNAL -19-03MAR93

HANDLE FLUIDS SAFELY—AVOID FIRES

When you work around fuel, do not smoke or work near heaters or other fire hazards.

Store flammable fluids away from fire hazards. Do not incinerate or puncture pressurized containers.

Make sure machine is clean of trash, grease, and debris.

Do not store oily rags; they can ignite and burn spontaneously.

TS227 -UN-23AUG88

DX,FLAME -19-04JUN90

10
05
2

PREVENT BATTERY EXPLOSIONS

Keep sparks, lighted matches, and open flame away from the top of battery. Battery gas can explode.

Never check battery charge by placing a metal object across the posts. Use a volt-meter or hydrometer.

Do not charge a frozen battery; it may explode. Warm battery to 16˚C (60˚F).

TS204 -UN-23AUG88

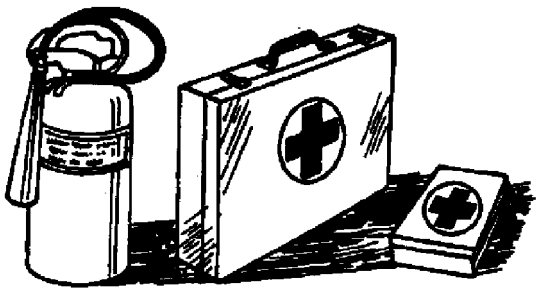
DX,SPARKS -19-03MAR93

PREPARE FOR EMERGENCIES

Be prepared if a fire starts.

Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.



TS291 -UN-23AUG88

DX,FIRE2 -19-03MAR93

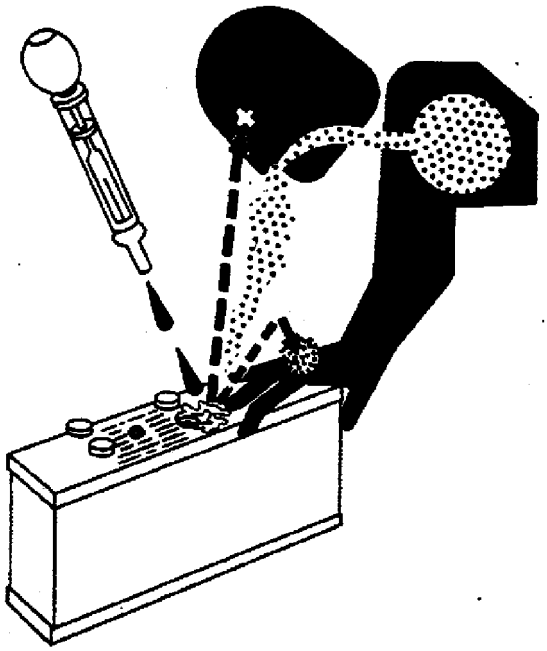
PREVENT ACID BURNS

Sulfuric acid in battery electrolyte is poisonous. It is strong enough to burn skin, eat holes in clothing, and cause blindness if splashed into eyes.

Avoid the hazard by:
1. Filling batteries in a well-ventilated area.
2. Wearing eye protection and rubber gloves.
3. Avoiding breathing fumes when electrolyte is added.
4. Avoiding spilling or dripping electrolyte.
5. Use proper jump start procedure.

If you spill acid on yourself:
1. Flush your skin with water.
2. Apply baking soda or lime to help neutralize the acid.
3. Flush your eyes with water for 15—30 minutes. Get medical attention immediately.

If acid is swallowed:
1. Do not induce vomiting.
2. Drink large amounts of water or milk, but do not exceed 2 L (2 quarts).
3. Get medical attention immediately.



TS203 -UN-23AUG88

DX,POISON -19-21APR93

10
05
4

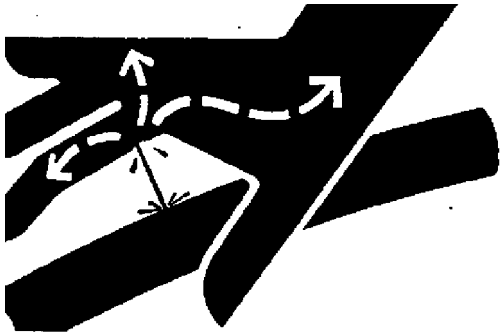
AVOID HIGH-PRESSURE FLUIDS

Escaping fluid under pressure can penetrate the skin causing serious injury.

Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure.

Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source. Such information is available from Deere & Company Medical Department in Moline, Illinois, U.S.A.

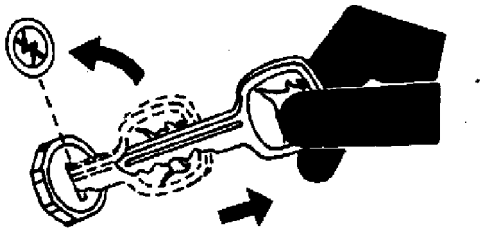


X9811 -UN-23AUG88

DX,FLUID -19-03MAR93

PARK MACHINE SAFELY

Before working on the machine:
- Lower all equipment to the ground.
- Stop the engine and remove the key.
- Disconnect the battery ground strap.
- Hang a “DO NOT OPERATE” tag in operator station.



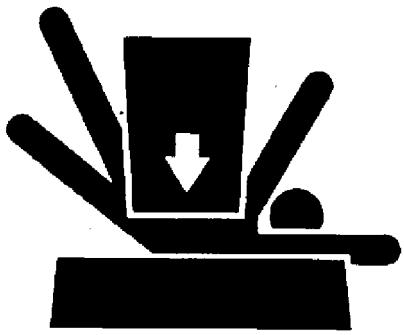
TS230 -UN-24MAY89

DX,PARK -19-04JUN90

SUPPORT MACHINE PROPERLY

Always lower the attachment or implement to the ground before you work on the machine. If you must work on a lifted machine or attachment, securely support the machine or attachment.

Do not support the machine on cinder blocks, hollow tiles, or props that may crumble under continuous load. Do not work under a machine that is supported solely by a jack. Follow recommended procedures in this manual.



TS229 -UN-23AUG88

DX,LOWER -19-04JUN90

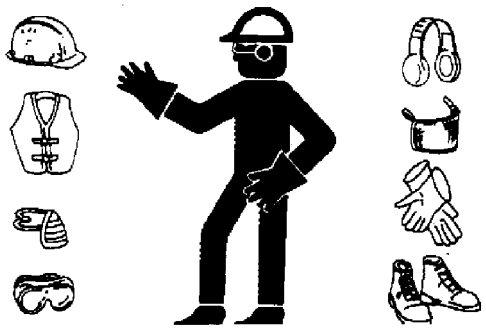
WEAR PROTECTIVE CLOTHING

Wear close fitting clothing and safety equipment appropriate to the job.

Prolonged exposure to loud noise can cause impairment or loss of hearing.

Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.

Operating equipment safely requires the full attention of the operator. Do not wear radio or music headphones while operating machine.



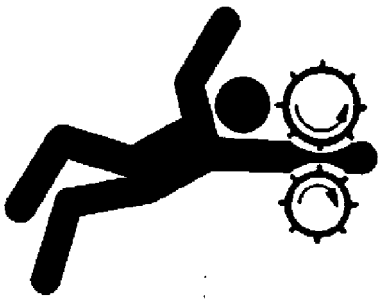
TS206 -UN-23AUG88

DX,WEAR -19-10SEP90

SERVICE MACHINES SAFELY

Tie long hair behind your head. Do not wear a necktie, scarf, loose clothing, or necklace when you work near machine tools or moving parts. If these items were to get caught, severe injury could result.

Remove rings and other jewelry to prevent electrical shorts and entanglement in moving parts.



TS228 -UN-23AUG88

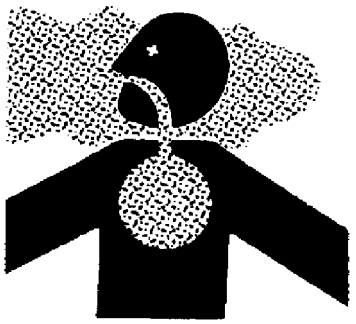
DX,LOOSE -19-04JUN90

10
05
6

WORK IN VENTILATED AREA

Engine exhaust fumes can cause sickness or death. If it is necessary to run an engine in an enclosed area, remove the exhaust fumes from the area with an exhaust pipe extension.

If you do not have an exhaust pipe extension, open the doors and get outside air into the area.



TS220 -UN-23AUG88

DX,AIR -19-04JUN90

ILLUMINATE WORK AREA SAFELY

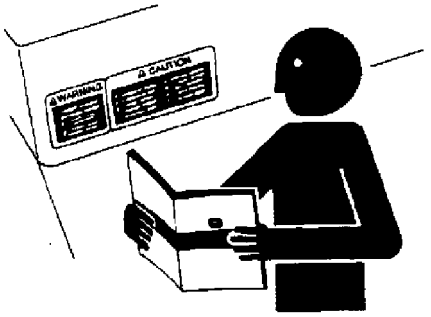
Illuminate your work area adequately but safely. Use a portable safety light for working inside or under the machine. Make sure the bulb is enclosed by a wire cage. The hot filament of an accidentally broken bulb can ignite spilled fuel or oil.

TS223 -UN-23AUG88

DX,LIGHT -19-04JUN90

REPLACE SAFETY SIGNS

Replace missing or damaged safety signs. See the machine operator's manual for correct safety sign placement.



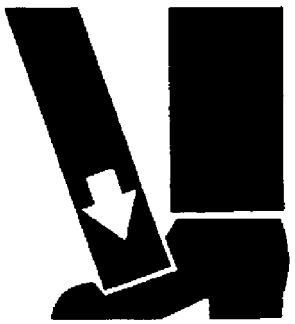
TS201 -UN-23AUG88

DX,SIGNS1 -19-04JUN90

USE PROPER LIFTING EQUIPMENT

Lifting heavy components incorrectly can cause severe injury or machine damage.

Follow recommended procedure for removal and installation of components in the manual.



TS226 -UN-23AUG88

DX,LIFT -19-04JUN90

SERVICE TIRES SAFELY

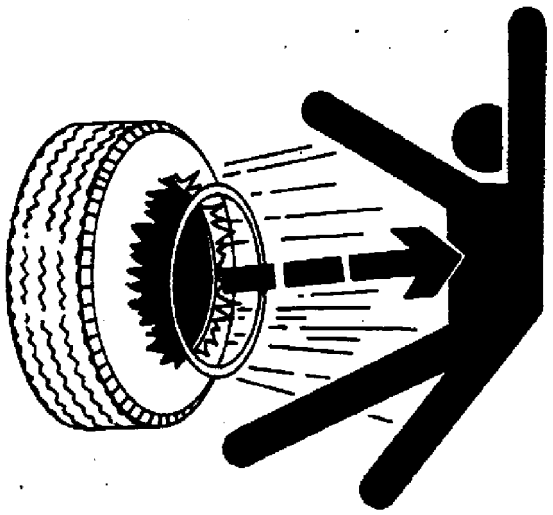
Explosive separation of a tire and rim parts can cause serious injury or death.

Do not attempt to mount a tire unless you have the proper equipment and experience to perform the job.

Always maintain the correct tire pressure. Do not inflate the tires above the recommended pressure. Never weld or heat a wheel and tire assembly. The heat can cause an increase in air pressure resulting in a tire explosion. Welding can structurally weaken or deform the wheel.

When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly. Use a safety cage if available.

Check wheels for low pressure, cuts, bubbles, damaged rims or missing lug bolts and nuts.



TS211 -UN-23AUG88

DX,RIM -19-24AUG90

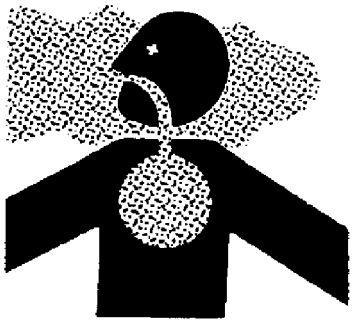
AVOID HARMFUL ASBESTOS DUST

Avoid breathing dust that may be generated when handling components containing asbestos fibers. Inhaled asbestos fibers may cause lung cancer.

Components in products that may contain asbestos fibers are brake pads, brake band and lining assemblies, clutch plates, and some gaskets. The asbestos used in these components is usually found in a resin or sealed in some way. Normal handling is not hazardous as long as airborne dust containing asbestos is not generated.

Avoid creating dust. Never use compressed air for cleaning. Avoid brushing or grinding material containing asbestos. When servicing, wear an approved respirator. A special vacuum cleaner is recommended to clean asbestos. If not available, apply a mist of oil or water on the material containing asbestos.

Keep bystanders away from the area.

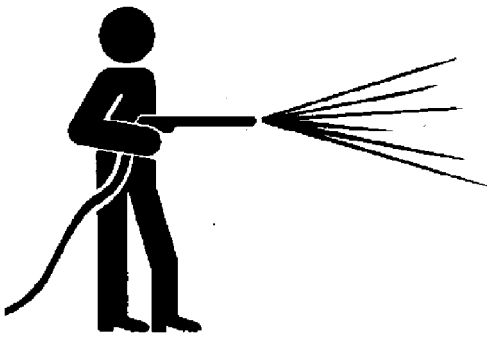


TS220 -UN-23AUG88

DX,DUST -19-15MAR91

WORK IN CLEAN AREA

Before starting a job:
- Clean work area and machine.
- Make sure you have all necessary tools to do your job.
- Have the right parts on hand.
- Read all instructions thoroughly; do not attempt shortcuts.



T6642EJ -UN-18OCT88

DX,CLEAN -19-04JUN90

PRACTICE SAFE MAINTENANCE

Understand service procedure before doing work. Keep area clean and dry.

Never lubricate, service, or adjust machine while it is moving. Keep hands, feet , and clothing from power-driven parts. Disengage all power and operate controls to relieve pressure. Lower equipment to the ground. Stop the engine. Remove the key. Allow machine to cool.

Securely support any machine elements that must be raised for service work.

Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any buildup of grease, oil, or debris.

Disconnect battery ground cable (-) before making adjustments on electrical systems or welding on machine.

TS218 -UN-23AUG88

DX,SERV -19-03MAR93

USE PROPER TOOLS

Use tools appropriate to the work. Makeshift tools and procedures can create safety hazards.

Use power tools only to loosen threaded parts and fasteners.

For loosening and tightening hardware, use the correct size tools. DO NOT use U.S. measurement tools on metric fasteners. Avoid bodily injury caused by slipping wrenches.

Use only service parts meeting John Deere specifications.

TS779 -UN-08NOV89

DX,REPAIR -19-04JUN90

DISPOSE OF WASTE PROPERLY

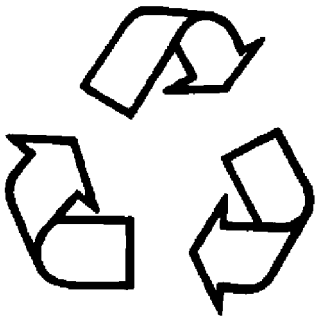
Improperly disposing of waste can threaten the environment and ecology. Potentially harmful waste used with John Deere equipment include such items as oil, fuel, coolant, brake fluid, filters, and batteries.

Use leakproof containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them.

Do not pour waste onto the ground, down a drain, or into any water source.

Air conditioning refrigerants escaping into the air can damage the Earth's atmosphere. Government regulations may require a certified air conditioning service center to recover and recycle used air conditioning refrigerants.

Inquire on the proper way to recycle or dispose of waste from your local environmental or recycling center, or from your John Deere dealer.



TS1133 -UN-26NOV90

DX,DRAIN -19-03MAR93

USE ADEQUATE SERVICE FACILITIES

10
05
10

Keep the service area clean and dry. Wet or oily floors are slippery. Wet spots can be dangerous when working with electrical equipment.

Make sure the service area is adequately vented.

Periodically check the shop exhaust system for leakage. Engine exhaust gas is dangerous.

Be sure all electrical outlets and tools are properly grounded.

Use adequate light for the job at hand.

Service the machine on a level, hard-surfaced area.

Use lifting equipment and safety stands which have adequate strength for the job being performed.

HX,1401,1005,A -19-11DEC92

LIVE WITH SAFETY

Before returning machine to customer, make sure machine is functioning properly, especially the safety systems. Install all guards and shields.

TS231 -19-07OCT88

DX,LIVE -19-25SEP92

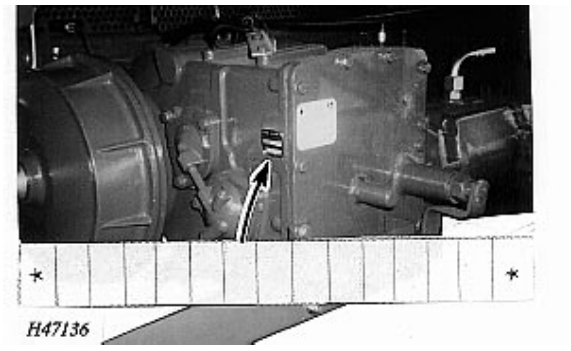
COMBINE IDENTIFICATION NUMBER

Located on left-hand side above rear axle.

HX,1401,1010A -19-11DEC92

TRANSMISSION (LATER UNITS)

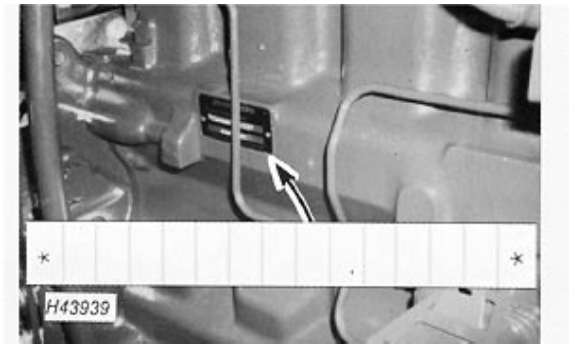
Located on the side of the transmission.



HX,9000ID,C -19-27SEP96

ENGINE SERIAL NUMBER FOR 9400 COMBINES

Located on rear side of engine.

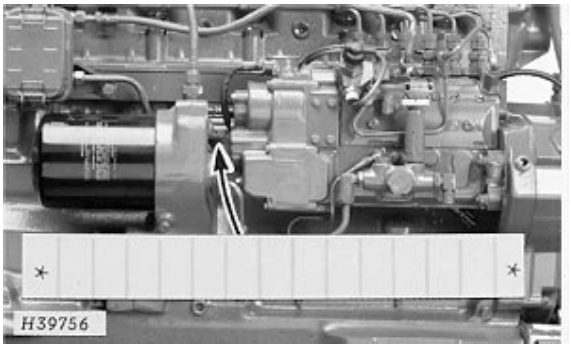


HX,1401,1010B -19-11DEC92

ENGINE SERIAL NUMBER FOR 9500, 9500 SIDEHILL, 9600 AND CTS COMBINES

The engine serial number is located on rear side of engine.

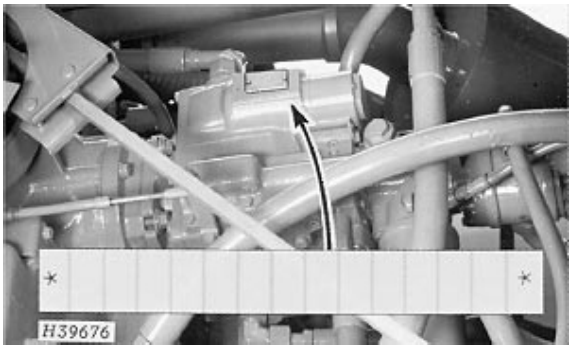
Early Engine Shown



HX,1010,A -19-28AUG96

HYDROSTATIC DRIVE UNIT PUMP

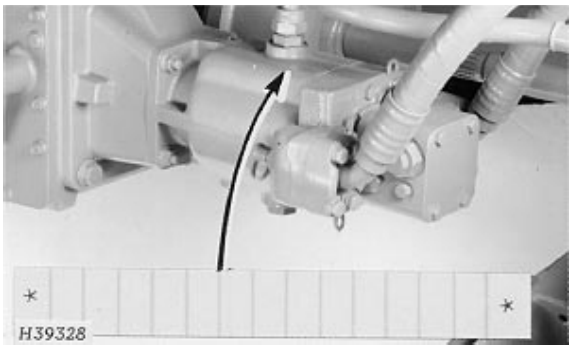
Located on the side of the pump section.



1401,1010,D -19-12SEP91

HYDROSTATIC DRIVE UNIT MOTOR

Located on top of the motor section.



1401,1010,E -19-12SEP91

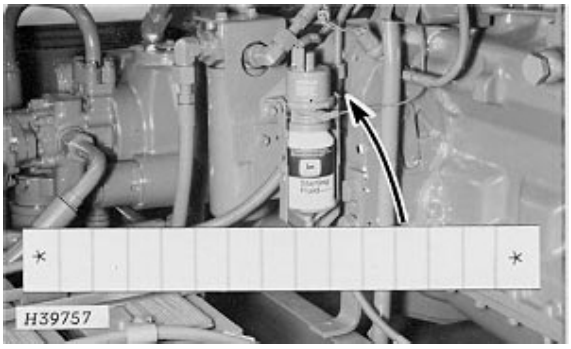
CAM LOBE 4-WHEEL DRIVE MOTOR

Located on top of motor.

1401,1010,F -19-12SEP91

ENGINE GEARCASE

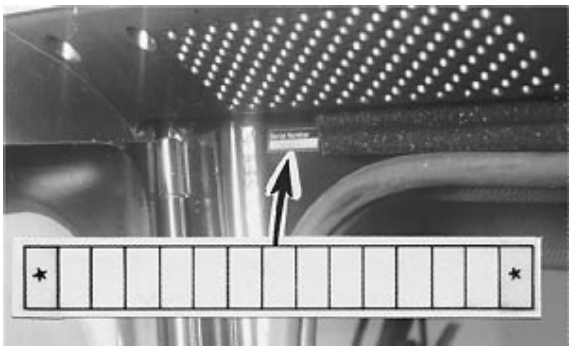
Located on the back side.



1401,1010,G -19-12SEP91

CAB

Located on door frame.



H41155 -UN-27OCT89

1401,1010,Y -19-12SEP91

SPECIFICATIONS—9400 COMBINES

Engine (6359A)	Make	John Deere (—640100)
	Model	6359A
	Type	six-cylinder, in line, valve-in-head, diesel, turbocharged
	Brake Horsepower	(125 kW) (167 hp)
	Displacement	5.9L (359 cu. in.)
	Bore and Stroke	107 x 110 mm (4.20 x 4.33 in.)
	Firing Order	1-5-3-6-2-4
	Air Cleaner	Dry Type with Safety Element
	Thermostats (Two)	82˚C (180˚F)
Engine (6068H)	Make	John Deere (—640101)
	Model	6068H
	Type	six-cylinder, in line, valve-in-head, diesel, turbocharged
	Brake Horsepower	138 kW (185 hp)
	Displacement	6.8L (414 cu. in.)
	Bore and Stroke	107 x 110 mm (4.20 x 4.33 in.)
	Firing Order	1-5-3-6-2-4
	Air Cleaner	Dry Type with Safety Element
	Thermostats (Two)	82˚C (180˚F)
Electrical System:	12 volt, negative ground with 90 amp alternator	
Transmission:	three speeds	
Brakes:	hydraulic shoe	
Cylinder:	Types	rasp bar or spike tooth
	Diameter	660 mm (26 in.)
	Width	1362 mm (53-1/2 in.)
	Number of bars: rasp bar	10
	spike tooth	12
Concave:	Types	open bar or spike tooth
	Area	8123 sq. cm (1259 sq. in.)
Beater:	Diameter	394 mm (15-1/2 in.)
	Number of wings	8
Beater Grate:	Type	open bar two-position adjustable
	Area	5300 sq. cm (821-1/2 sq. in.)

HX,1401,1015,A -19-27NOV96

SPECIFICATIONS—9400 COMBINES

10
15
2

Finger Bar:	Type	adjustable
	Area	4780 sq. cm (741 sq. in.)
Separator:	Type	straw walkers
	Width	1391 mm (55 in.)
Cleaning Shoe:	Chaffer width	1286 mm (51 in.)
	Chaffer length (with extension)	1220 mm (45 in.)
	Sieve width	1286 mm (51 in.)
	Sieve length	1159 mm (46 in.)
	Precleaner width	1286 mm (51 in.)
	Precleaner length	840 mm (33 in.)
	Total area	411 sq. cm (6370 sq. in.)
Straw Walkers:	Type	Lip
	Number of walkers	4
	Length	4000 mm (157 in.)
	Total area	556 sq. cm (8624 sq. in.)
Grain Tank:	Capacity	6410L (182 bu.)
	Average Unloading Rate	4200L/min. (120 bu./min.)
Weights:	Less header (base equipment on a Corn Combine)	10 333 kg (22,780 lb.)
Capacities:	Fuel tank	530L (140 gal.)
	Cooling system (with heater)	36L (38 U.S. qts.)
	Engine crankcase (with filter) 6359A	14L (14-1/2 U.S. qts.)
	Engine crankcase (with filter) 6068H	18.9L (20 U.S. qts.)
	Transmission	9.6L (10 U.S. qts.)
	Final Drives (each)	8.0L (8.5 U.S. qts.)
	Feeder House Reverser Gearcase	1.9L (2 U.S. qts.)
	Separator Drive Gearcase	2.4L (2-1/2 U.S. qts.)
	Straw Walker Drive Gearcase	0.7L (1-1/2 U.S. qts.)
	Dual-Range Cylinder Drive Gearcase	1.9L (2 U.S. qts.)
	Engine Gearcase	16L (17 U.S. qts.)
	Loading Auger Gearcase	4.7L (5 U.S. qts.)
	Hydraulic/Hydrostatic Reservoir	34L (36 U.S. qts.)
	Air Conditioning System	2.2 kg (4.9 lb)

HX,1401,1015,B -19-13SEP94

OPERATING SPEEDS—9400 COMBINES

Speeds shown are average and can vary from combine to combine. Speeds are rated at high idle with separator engaged, no load.

Engine: Slow Speed, Separator Off	(-639,999)	1200 rpm
	(640,000-)	1350 rpm
Fast Speed, Separator Off	(-639,999)	2550 rpm
Fast Speed, Separator Engaged	(640,000-)	2350 rpm
Full Load Rated Speed	(-639,999)	2400 rpm
	(640,000-)	2200 rpm
Separator Drive Shaft Speed		1550 rpm
Main Countershaft Speed		1550 rpm
Hydrostatic Pump Speed:	Ring and Pinion Final Drives	3510 rpm
Cylinder Speed:	Grain Special	470-960 rpm
	Extended Single Range	300-980 rpm
	Extended Dual Range (High Range)	300-980 rpm
	Extended Dual Range (Low Range)	150-480 rpm
Feeder House Lower Shaft:	Fixed Speed	520 rpm
	Variable	520-715 rpm
Secondary Countershaft		530 rpm
Cleaning Fan:	Standard	750-1350 rpm
	Optional	500-980 rpm
Clean Grain Elevator		400 rpm
Tailings Elevator		430 rpm
Shoe Crankshaft		280 rpm
Straw Walkers		170 rpm
Unloading Auger Countershaft		1060 rpm
Loading Auger		460 rpm
Inner Grain Tank Unloading Augers:	Front	405 rpm
	Rear	380 rpm
Vertical and Horizontal Unloading Augers		440 rpm
Straw Chopper:	Low (Corn)	1595 rpm
	High (Grain)	2130 rpm
Straw Spreader Shaft		235 rpm
Shoe Grain Supply Augers Shaft		405 rpm

HX,1401,1010,B -19-27NOV96

GROUND SPEEDS (SEPARATOR FULL LOAD)

10
15
4

For 9400 Combines equipped with ring and pinion final drives.

				Speed in Km/h (mph)		
	TIRE SIZE	2WD	4WD	FIRST GEAR	SECOND GEAR	THIRD GEAR
	20.8x38 R1	X		5.9 (3.7)	11.1 (6.9)	29.4 (18.4)
	20.8x38 R1		X	4.8 (3.0)	7.7 (4.8)	13.4 (8.4)
(Australia Only)	24.5x32 R1	X		5.9 (3.7)	14.3 (9.0)	29.4 (18.4)
	24.5x32 R1	X		5.9 (3.7)	11.1 (6.9)	29.4 (18.4)
	24.5x32 R1		X	4.8 (3.0)	7.7 (4.8)	13.4 (8.4)
	24.5x32 R3	X		5.7 (3.6)	10.6 (6.7)	28.3 (17.6)
	30.5Lx32 R1	X		5.9 (3.7)	11.1 (6.9)	29.4 (18.4)
	30.5Lx32 R1		X	4.8 (3.0)	7.7 (4.8)	13.4 (8.4)
	30.5Lx32 R2	X		6.3 (3.9)	11.7 (7.2)	31.2 (19.3)
	30.5Lx32 R2		X	5.2 (3.2)	8.0 (5.0)	14.0 (8.7)
	30.5Lx32 R3	X		5.7 (3.6)	10.6 (6.7)	28.3 (17.6)

HX,1401,1010Z -19-11DEC92

SPECIFICATIONS—9500 COMBINES

Engine:	Make	John Deere (—640200)
	Model	6076T
	Type	six-cylinder, in line, valve-in-head, diesel, turbocharged
	Brake Horsepower	142 kW (190 hp)
	Displacement	7.6L (466 cu. in.)
	Bore and Stroke	116 x 121 mm (4.56 x 4.75 in.)
	Firing Order	1-5-3-6-2-4
	Air Cleaner	Dry Type with Safety Element
	Thermostats (Two)	82˚C (180˚F)
Engine:	Make	John Deere (640201—)
	Model	6076H
	Type	six-cylinder, in line, valve-in-head, diesel, turbocharged
	Brake Horsepower Corn and Rice Special	175 to 186 kW (235 w/boost to 250)
	Grain	160 to 170 kW (215 w/boost to 228)
	Displacement	7.6L (466 cu. in.)
	Bore and Stroke	116 x 121 mm (4.56 x 4.75 in.)
	Firing Order	1-5-3-6-2-4
	Air Cleaner	Dry Type with Safety Element
	Thermostats (Two)	82˚C (180˚F)
Electrical System:	12 volt, negative ground with 90 amp alternator	
Transmission:	three speeds	
Brakes:	hydraulic shoe	
Cylinder:	Types	rasp bar or spike tooth
	Diameter	660 mm (26 in.)
	Width	1362 mm (53-1/2 in.)
	Number of bars: rasp bar	10
	spike tooth	12
Concave:	Types	open bar or spike tooth
	Area	8123 sq. cm (1259 sq. in.)
Beater:	Diameter	394 mm (15-1/2 in.)
	Number of wings	8
Beater Grate:	Type	open bar two-position adjustable
	Area	5300 sq. cm (821.5 sq. in.)

HX,1401,1015,E -19-27NOV96

SPECIFICATIONS—9500 COMBINES

10
15
6

Finger Bar:	Type	adjustable
	Area	4780 sq. cm (741 sq. in.)
Separator:	Type	straw walkers
	Width	1391 mm (55 in.)
Cleaning Shoe:	Chaffer width	1286 mm (51 in.)
	Chaffer length	830 mm (32-1/2 in.)
	Sieve width	1286 mm (51 in.)
	Sieve length	1159 mm (46 in.)
	Precleaner width	1286 mm (51 in.)
	Precleaner length	840 mm (33 in.)
	Total area	411 sq. cm (6370 sq. in.)
Straw Walkers:	Type	Lip
	Number of walkers	4
	Length	4500 mm (177 in.)
	Total area	626 sq. cm (9702 sq. in.)
Grain Tank:	Capacity	7.0 cu m (204 bu.)
	Average unloading rate	4200L/min. (120 bu./min.)
Weights:	Less Header (Base equipment on Corn Combine)	10935 kg (24,110 lb.)
Capacities:	Fuel tank	530L (140 gal.)
	Cooling system (with heater)	36L (38 U.S. qts.)
	Engine crankcase (with filter)	23.2L (24-1/2 U.S. qts.)
	Transmission	9.6L (10 U.S. qts.)
	Final Drives (each)	8.0L (8.5 U.S. qts.)
	Feeder House Reverser Gearcase	1.9L (2 U.S. pts.)
	Separator Drive Gearcase	2.4L (2-1/2 U.S. qts.)
	Straw Walker Drive Gearcase	0.7L (1-1/2 U.S. pts.)
	Dual-Range Cylinder Drive Gearcase	1.9L (2 U.S. qts.)
	Engine Gearcase	16L (17 U.S. qts.)
	Loading Auger Gearcase	4.7L (5 U.S. qts.)
	Hydraulic/Hydrostatic Reservoir	34L (36 U.S. qts.)

HX,1401,1015,F -19-13SEP94

OPERATING SPEEDS—9500 COMBINES

Speeds shown are average and can vary from machine to machine. Speeds are rated at high idle with separator engaged, no load.

Engine:	Slow Idle (Separator Off)	1200 rpm
	Mid Speed	1650 rpm
	Fast Idle (Separator Engaged)	2340 rpm
	Separator Full Load	2200 rpm
Separator Drive Shaft Speed		1550 rpm
Main Countershaft Speed		1550 rpm
Hydrostatic Pump Speed:	Ring and Pinion Final Drives	3510 rpm
Cylinder Speed:	High Range	480-980 rpm
	Low Range	240-480 rpm
	Grain Special	470-960 rpm
	Edible Bean	150-250 rpm
Feeder House Lower Shaft:	Fixed Speed	520 rpm
	Variable	520-715 rpm
Secondary Countershaft		530 rpm
Cleaning Fan:	Standard	750-1350 rpm
	Optional	500-980 rpm
Clean Grain Elevator		400 rpm
Tailings Elevator		430 rpm
Shoe Crankshaft		280 rpm
Straw Walkers		170 rpm
Unloading Auger Countershaft		1060 rpm
Loading Auger		460 rpm
Inner Grain Tank Unloading Augers:	Front	360 rpm
	Rear	360 rpm
Vertical and Horizontal Unloading Augers		390 rpm
Straw Chopper:	Low (Corn)	1595 rpm
	High (Grain)	2130 rpm
Straw Spreader Shaft		235 rpm
Shoe Grain Supply Augers Shaft		405 rpm

HX,1401,1015,G -19-13SEP94